

New York's Eastern Lake Ontario Dune and Wetland System: Building Effective Partnerships for Resource Stewardship in the 21st Century



A presentation by
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New York Department of State's Division of Coastal Resources

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The Fourth Coast



The Great Lakes - St. Lawrence River system is the largest fresh surface water system on earth and a diverse, dynamic, and evolving ecosystem. Lake Ontario is the last lake in the chain.

The New York Coast



The coastal area of New York includes Long Island Sound, the south shore of Long Island, the Hudson and St. Lawrence rivers, and the New York shores of lakes Erie and Ontario.

New York's Eastern Lake Ontario Dune and Wetland System



The eastern Lake Ontario Dune and Wetland System, one of the last relatively undisturbed sections of the New York coast, covers about 17 miles along the eastern shore of the lake.

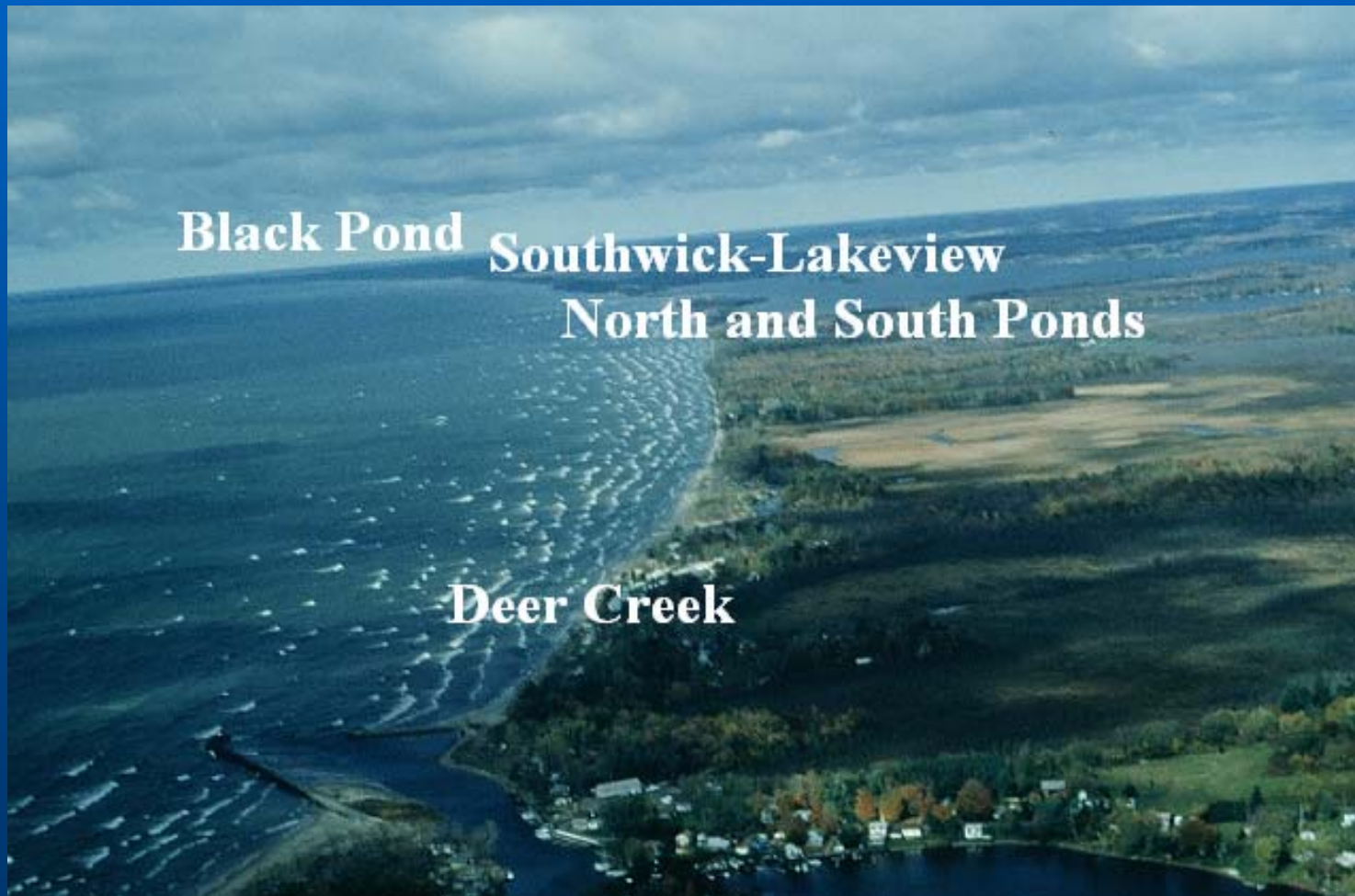
An Ecological System of Inter-Related Parts



The DWS includes:

- Sand dunes
- Barrier beaches
- Wetlands
- Embayments
- Inlets
- Nearshore lake waters
- Underwater lands
- Upland shoreland
- Watershed tributaries

Four Resource Areas



Deer Creek Resource Area



- Brennan Beach Campground
- Deer Creek WMA
- Lakeshore Residential Areas



Deer Creek WMA

Brennan Beach Campground

Deer Creek WMA

Deer Creek



MANTAINED BY BUTLER INMATES
DEER CREEK

WELCOME TO THE LARGEST
 QUINN AND WATSON AREA

The 17,000-acre Quinn and Watson Area is a beautiful natural area with a variety of habitats. From the open fields to the dense woods, there is something for everyone. The area is a great place to enjoy the outdoors and to learn about the natural world around us.



Map of the Quinn and Watson Area showing various trails and landmarks.

DEER CREEK MARSH

STATE OF NEW YORK
 DEPARTMENT OF
 ENVIRONMENTAL CONSERVATION
 GREAT WINDUPPT HILL STATE WILDERNESS

Protects a portion of the Quinn and Watson Area. The area is a great place to enjoy the outdoors and to learn about the natural world around us.

- No hunting or trapping is allowed.
- No off-trail travel is permitted.
- No fires are allowed.
- No alcohol, drugs, or firearms are permitted.
- No dogs are allowed.
- No vehicles are allowed.
- No motorized equipment is allowed.
- No bicycles are allowed.
- No equestrian activities are allowed.
- No other activities are allowed without the express permission of the Department of Environmental Conservation.

North Entrance to Deer Creek WMA



Stabilized High Dune in Deer Creek WMA



Rainbow Shores

North and South Ponds Resource Area



- Sandy Island Beach State Park
- Sandy Pond Beach Natural Area
- Lakeshore Residential Areas
- Marinas and boat slips

An aerial photograph showing a coastal area. On the left is a large body of dark blue water. A narrow strip of land, likely a beach or dune area, runs vertically through the center. To the right of this strip is a large, irregularly shaped pond or inlet, also filled with dark blue water. The land to the right of the pond is covered in dense, brownish-green vegetation. The overall scene is a mix of water, sand, and forested land.

North Pond Inlet

Sandy Pond Beach
Natural Area

North Pond

Sandy Island
Beach State Park



Sandy Island Beach State Park



Sandy Island Beach State Park

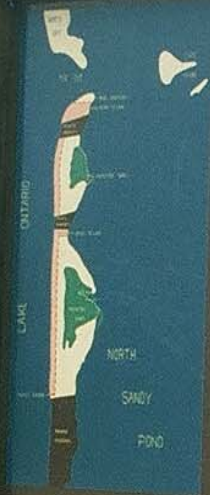
An aerial photograph showing a coastal landscape. The image features several bodies of water in various shades of blue and green, separated by sandy and vegetated landmasses. A prominent sandbar runs diagonally across the middle of the frame. In the upper left, a small island with a white structure is visible. The overall scene depicts a complex network of waterways and landforms.

North Pond

North Pond Inlet

Sandy Pond Beach Natural Area

Welcome to Sandy Pond Beach,
a cooperative project of the New York State
Department of Environmental Conservation
(DEC), The Nature Conservancy, and
The Friends of Sandy Pond Beach.



LEGEND

- PRIVATE PROPERTY NO TRESPASSING
- PUBLIC USE AREA
- REGULATED WETLANDS
- PROPERTY BOUNDARY
- RESTRICTED AREA BOUNDARY
- BOUNDARY TO LAKE
- VEHICLE BARRIER
- OPEN WATER

NATURAL AREA USER GUIDELINES

To facilitate our goals we ask all visitors
to observe the following:

Visitor Hours: Open to the public beginning half an
hour before sunrise to half an hour after sunset.

Camping, open campfires, glass are prohibited
although self-contained heaters are permitted.

No vehicles of any kind.

No trespassing on the dunes or other restricted
areas. Walking over dunes damages stabilizing
vegetation and accelerates dune erosion and the
protective function dunes provide.

Dogs must be kept on a leash.



ENJOY YOUR VISIT!

**Sandy Pond Beach
Natural Area**



String Fence at Sandy Pond Beach Natural Area



High Dune on the North Pond Barrier

An aerial photograph showing a sandy spit of land with green vegetation extending into a large body of water. The water is a deep blue-green color with visible wave patterns. In the background, a long, narrow island or peninsula is visible, also covered in green trees. The sky is clear and blue.

North Pond

North Spit

Lake Ontario

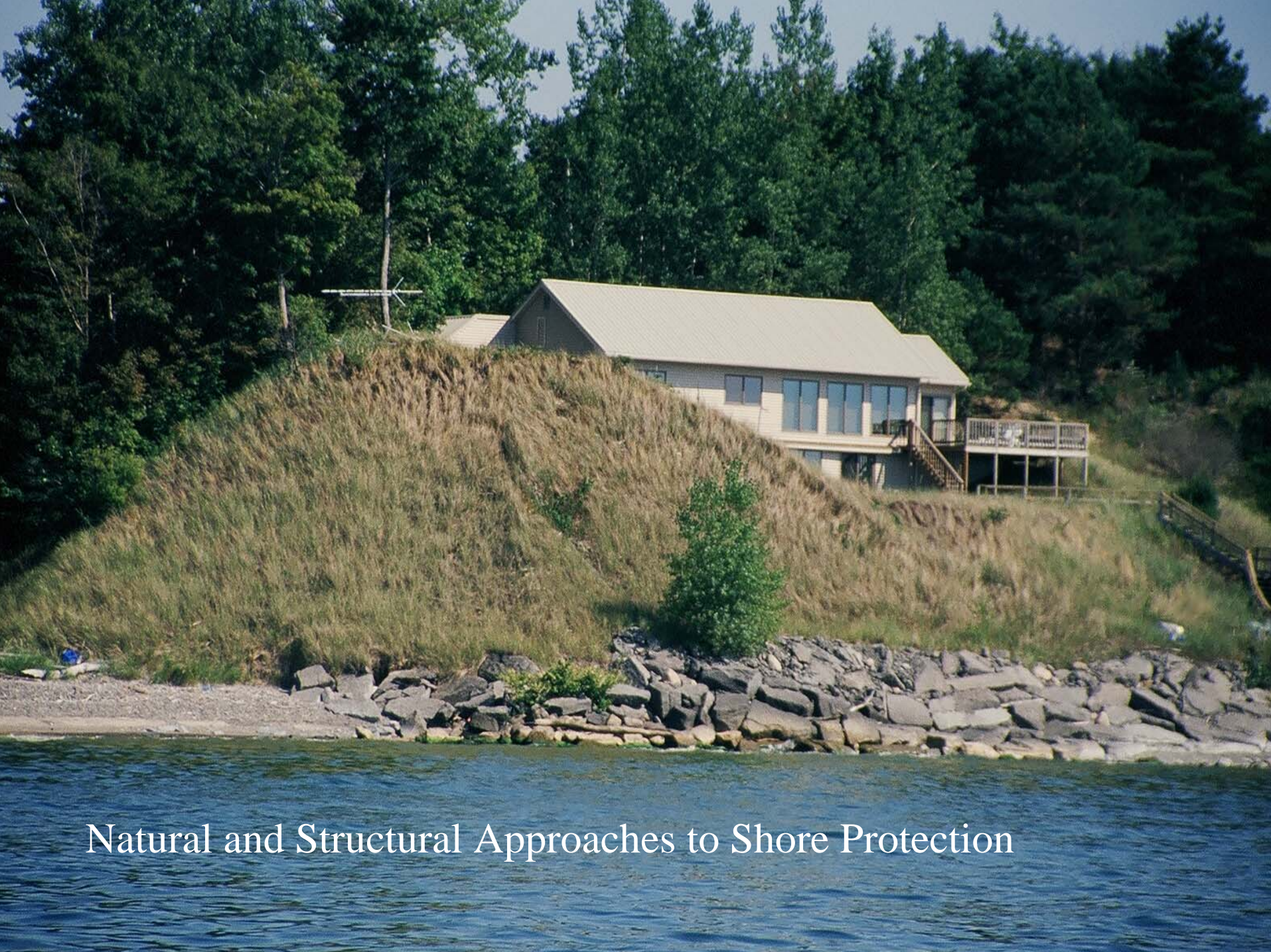
North Spit “Blow-out”



North Pond

Little Sandy Creek





Natural and Structural Approaches to Shore Protection

Southwick-Lakeview Resource Area



- Southwick Beach State Park
- Lakeview WMA (North Section)
- Lakeview WMA (South Section)

An aerial photograph showing a coastline. On the right side, a large body of blue water meets a wide, sandy beach. The beach is bordered by a dense line of green trees. To the left of the trees, there is a green field with a small pond or stream. In the background, more green fields and a larger body of water are visible. The text 'Lakeview WMA' is overlaid in the upper left, and 'Southwick Beach State Park' is overlaid in the lower left.

Lakeview WMA

Southwick Beach
State Park



Southwick Beach State Park



Lakeview Outlet

Sandy Creek

Lakeview WMA

South Sandy Creek

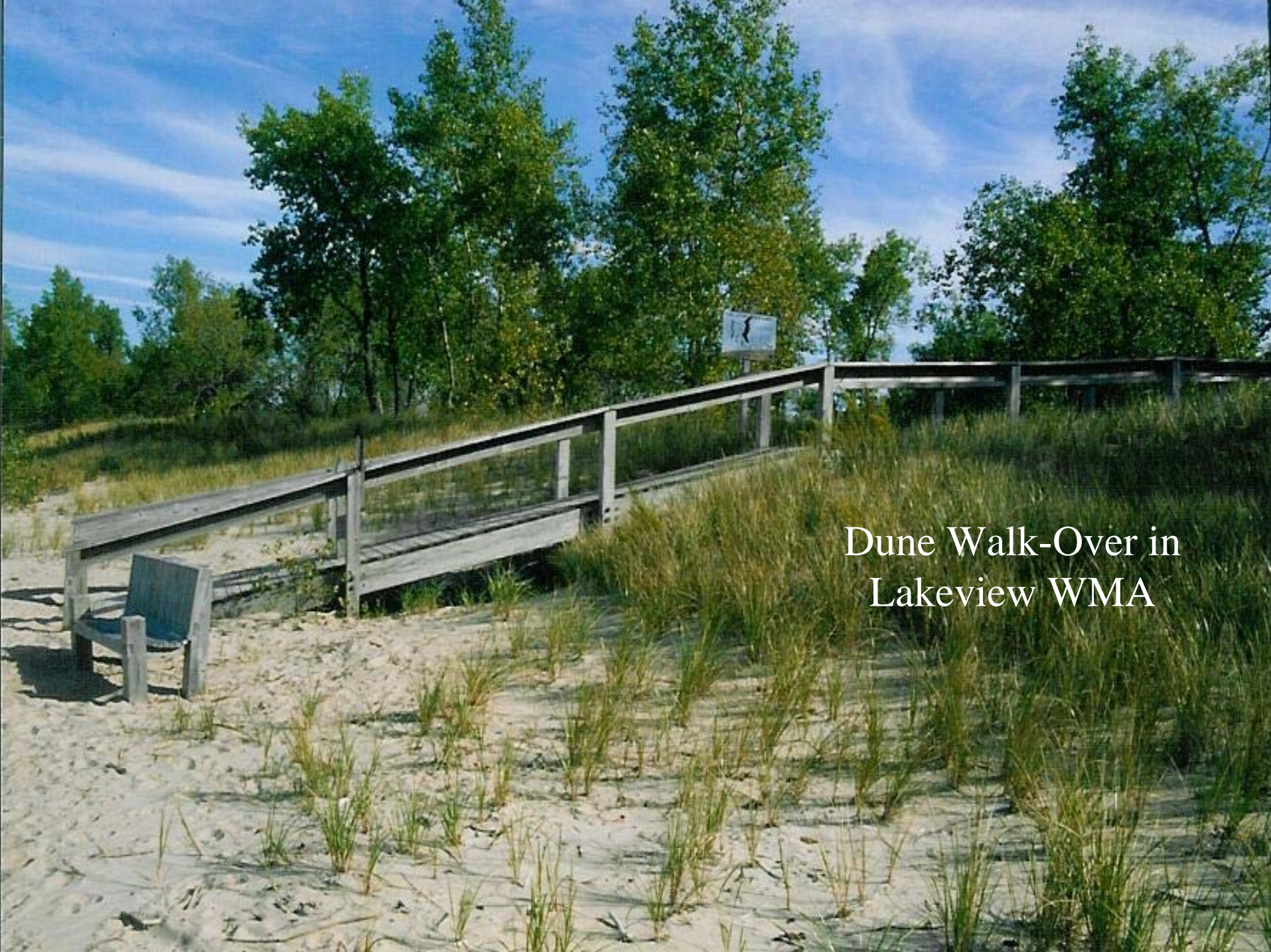


Lakeview Outlet

**LAKEVIEW
NATURAL BEACH
Sand Dune Walkover
HABITAT RESTORATION PROJECT**

CONSTRUCTED by the NYS DEC
FUNDED by the US EPA

Lakeview WMA



Dune Walk-Over in
Lakeview WMA



Lakeview WMA

Black Pond Resource Area



- El Dorado Beach Preserve
- Black Pond WMA
- Lakeshore Residential Areas

An aerial photograph showing a long, narrow beach curving along the coast. The water is a clear, light blue-green color. To the right of the beach is a dense forest of trees, and further inland, there are several small ponds and wetlands. The overall scene is a mix of natural coastal and inland features.

El Dorado Beach Preserve

Black Pond WMA

A gravel path leads through a dense forest of tall, thin trees. The path is bordered by concrete curbs on both sides. Sunlight filters through the canopy, creating dappled shadows on the path. In the distance, a wooden structure, possibly a beach entrance, is visible. Several signs are posted on trees along the path.

Entrance to Black Pond
WMA Beach

ALL PETTS MUST
BE SECURED BY ALL
FOOT LEASH AND
UNDER CONTROL
AT ALL TIMES

ALL PETTS MUST
BE SECURED BY ALL
FOOT LEASH AND
UNDER CONTROL
AT ALL TIMES

IF YOU CARRY A BAG
PLEASE
DO NOT
LITTER

**NO
TRESPASSING**
between
10 P.M. and 4 A.M.
May 15 - Sept. 15
Penalty for
VIOLATION: \$100.00
AT ALL TIMES



Black Pond WMA



Black Pond WMA Beach

An aerial photograph showing a residential area with several small, light-colored buildings and a dirt road. The area is bordered by a dense forest of tall, thin trees on the left and a large, irregularly shaped body of water with a dark blue-green hue at the top. The foreground is dominated by a wide, sandy beach that meets the water's edge. The overall scene suggests a remote or semi-remote settlement in a natural, possibly coastal or wetland, environment.

Black Pond WMA

North Jefferson Park Residential Area

An aerial photograph showing a large, dark, irregularly shaped pond (Black Pond) in the upper left. To its right is a large, sandy area with sparse vegetation (Black Pond WMA). In the lower left, a rocky coastline meets the ocean (El Dorado Beach Preserve). The ocean is a deep blue-green color. The labels are in white serif font.

Black Pond

Black Pond WMA

El Dorado
Beach
Preserve

Impacts on the System: Human and Natural



Some Difficult Questions

- What is the “carrying capacity” of the system?
- How should we address cumulative impacts?
- To what extent should we try to influence natural processes?



- What is the right balance between use and conservation?
- How do we protect this unique resource for the benefit of future generations?

The “Institutional Framework” for Resource Management



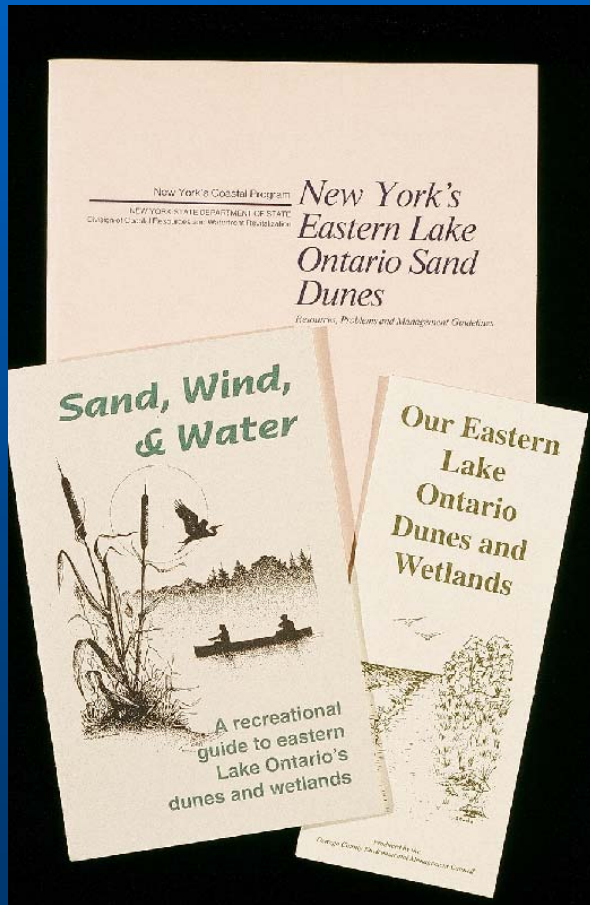
- Three towns
- Two counties
- Federal agencies
- State agencies, including DOS, DEC, and OPRHP
- Conservation organizations
- Private land owners
- The general public

The Ontario Dune Coalition



A public-private partnership to “promote and support the protection, stabilization, restoration, and optimum public use of eastern Lake Ontario sand dunes and related land and water resources while respecting the rights of private property owners.”

1989 “Dunes Report”: A Foundation for Resource Management



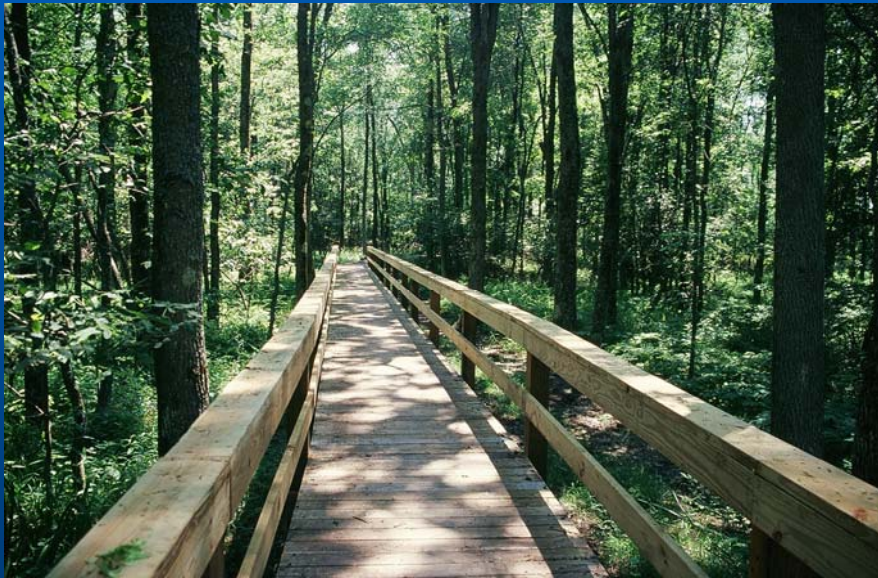
- Funded and directed by the DOS
- Not prepared as a plan
- Identified issues
- Increased public awareness and understanding
- Provided recommendations for cooperative, voluntary actions

2006 Dune and Wetland System Study



- Funded and directed by the DOS
- Provides an update on current conditions
- Describes progress made and lessons learned from the “Dunes Report”
- Establishes stewardship goals and priorities for the next 10 years

Accomplishments



- Education and outreach
- Scientific studies
- Land management techniques
- Protection of key properties
- Public support and awareness
- Dune steward program
- Public access

Sandy Island Beach in 1999



Sandy Island Beach State Park in 2006

A model of the positive changes that can be achieved through intergovernmental cooperation with public support and a common vision.



Dune Steward Program



A student-based program, started in 1988, to monitor and educate. Made possible through a partnership of NYSG, DEC, OPRHP, EPA, TNC, and other stewardship partners.

What Have We Learned?



- Don't stop educating yourself.
- Appreciate the complexity of natural processes.
- Work as a team.
- Public support is vital but be prepared for opposition.
- Volunteers are essential partners.

Lessons Learned (cont.)



- Publicize your activities.
- Don't forget follow-up monitoring.
- Be prepared for the long haul; stewardship never ends.
- Don't preach: recognize and respect stakeholder's objectives.
- Base management decisions on science but recognize that some projects require as much art as science.

Lessons Learned (cont.)



- Strive for balance.
- Coastal management is conservation and beneficial use and economic development.
- Don't rely on regulations; planning, outreach, education, and voluntary initiatives are essential.

Lessons Learned (cont.)



- Research should have a practical application.
- Your ability to work with people is just as important as technical knowledge.
- Evaluate your effectiveness; adapt as necessary.

A Stewardship Vision for Resource Conservation and Beneficial Use



1. Public recognition of DWS resources and values
2. Active management of areas and resources
3. Recognition of ecological systems

A Stewardship Vision (cont.)



4. Management coordination and partnerships
5. Public interest, support, and awareness
6. Management balance
 - a) Public health, safety and welfare
 - b) Environmental conservation and enhancement
 - c) Recreational use
 - d) Residential and other private uses

A Stewardship Vision (cont.)



7. Sustainable economic benefits
8. Effective shore protection
9. Understanding resource carrying capacity
10. Educational and scientific use
11. Cultural enrichment

A Stewardship Vision (cont.)

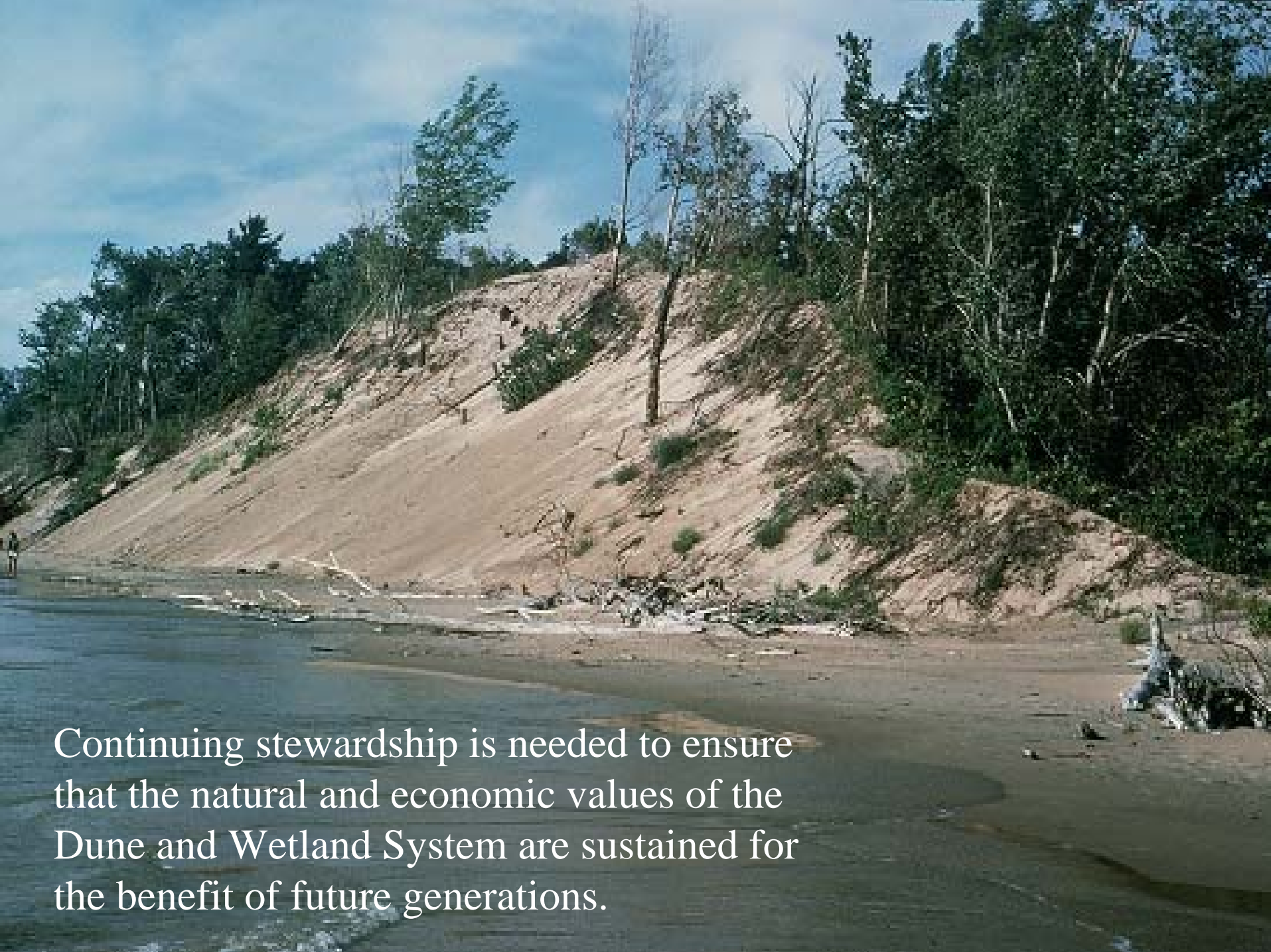


12. Informed and effective planning
13. Individual stewardship actions
14. Dedicated funds for resource management
15. Effective response to changing conditions

A Ten Year Plan for Implementing the Stewardship Vision

- 1) Endorsement of the stewardship vision
- 2) Inlet management plan
- 3) Management plans for public areas
- 4) Special area designation
- 5) Outdoor sports and environmental awareness facility
- 6) Managed habitat for shorebirds
- 7) Dedicated source of funds
- 8) Enhanced project review
- 9) Improved reporting of violations
- 10) Monitoring of shoreline change





Continuing stewardship is needed to ensure that the natural and economic values of the Dune and Wetland System are sustained for the benefit of future generations.

Acknowledgements

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